

IRONHOUSE SANITARY DISTRICT

Sewer Capacity Fee Study

Final Report

May 2025



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1. Executive Summary

1.1 Background and Purpose

Ironhouse Sanitary District (“District”) retained NBS to conduct a sewer capacity fee study for two primary reasons: (1) to ensure that the fees are updated to comply with legal requirements and industry standards, and (2) to ensure that these fees reflect the cost of capital infrastructure needed to serve new connections, or any customer requesting additional capacity in the District’s sewer system (referred to throughout as “future customers”).

Please note, the fees updated in this study are commonly referred to as “connection fees,” “capital facility fees,” “capacity charges,” or in this case, “capacity fees.” The terms are often used interchangeably, and California Government Code Section 66013 defines these types of fees (referred to as a “capacity charge”) as a one-time “charge for public facilities in existence at the time a charge is imposed or charges for new public facilities to be acquired or constructed in the future that are of proportional benefit to the person or property being charged, including supply or capacity contracts for rights or entitlements, real property interests, and entitlements and other rights of the local Agency involving capital expense relating to its use of existing or new public facilities.” It authorizes public agencies to impose “connection fees” (e.g., capacity fees) which are more appropriately called system capacity charges or capacity fees, on customers connecting to or upsizing their connection to the sewer system, to ensure that they pay their fair share of existing utility asset costs, plus the costs of new facilities needed to serve them. In its simplest form, capacity fees are the result of dividing the cost (or value) of the Agency’s current system assets available for future users plus planned capital improvements to accommodate future users, by the expected number of future customers. As a result, future customers connecting to the Agency’s sewer utilities would enter as equal participants, along with current customers, regarding their financial commitment and obligations to the utilities.

Whereas sewer rate increases imposed on existing customers require a protest ballot procedure (under Proposition 218), capacity fees do not because they are an appropriate funding mechanism for facilities that benefit new development agencywide and may be imposed by a majority vote of the governing legislative body, which in this case is the District’s Board of Directors. This report provides the documentation and findings necessary for the adoption of proposed capacity (system capacity) fees.

1.2 Overview of Capacity Fee Program Methodology

Various methodologies have been and are currently used to calculate sewer capacity fees. The most common methodologies are based on the following from the American Water Works Association’s Principles of Water Rates, Fees and Charges¹, also referred to as Manual M1, and the Water Environment Federation’s *Financing and Charges for Wastewater Systems* (Manual of Practice No. 27)²:

- The value of existing (historical) system assets, often called a “system buy-in” or “replacement cost” methodology.

¹ *Principles of Water Rates, Fees, and Charges, Manual of Water Supply Practices, M1, AWWA, seventh edition, 2017.*

² *Financing and Charges for Wastewater Systems, Manual of Practice No. 27, Water Environment Federation, Fourth Edition, 2018.*

- The value of planned future improvements, also called the “incremental” or “system development” methodology.
- A combination of these two approaches.

This analysis uses the “Combination Approach,³” which requires new customers to pay both their fair share of existing system assets as well as their share of the planned future capital improvements needed to provide them with capacity in the District’s sewer system. As a result, new customers connecting to the District’s sewer system would enter as equal participants with existing customers regarding their financial commitment and obligations to the utility.

In their simplest form, capacity fees are calculated by dividing the costs allocated to future development by the number of units of new development anticipated:

- Costs of planned future facilities and improvements required to serve new development are those that can reasonably be allocated to future development.
- The number of new units (i.e., growth) are those units projected to occur within the timeframe covered by the capacity fee analysis.

Capacity fees are one-time fees intended to reflect the cost of existing infrastructure and planned improvements available to new services, and place new utility customers or existing customers requesting an increase in service capacity on equal basis from a financial perspective with existing customers. Once new customers are added to the system, they then incur the obligation to pay the same service charges or monthly usage rates that existing customers pay.

This capacity fee study and the recommended fees assume a given level of development activity over the course of the study period based on data available from the District’s Sewer System Master Plan. The development that occurs may result in both different impacts and fee revenues than those that are calculated in this study. For that reason, regular updates are recommended to adjust the fees to match the needs created by the rate of actual development.

In developing the proposed fees, NBS worked cooperatively with District staff. The fees presented in this study reflect input provided by District staff regarding financial matters, available capacity in the sewer system, existing asset values, and planned capital improvements.

Section 2 discusses in more detail the development of the sewer capacity fees and present the updated fees recommended for new and upsized connections.

³ *Method of calculating capacity fees (also known as System Development Fees, Connection Fees, Capital Facility Fees) are set forth in the American Water Works Association’s Principles of Water Rates, Fees and Charges Seventh Edition (2017) pages 311 to 347.*

2. Sewer Capacity Fee Study

2.1 Existing Connections and Projected Future Growth

The first step in calculating capacity fees involves a review of the system planning criteria. Different types of customers have the potential to use more of the sewer system’s capacity depending on the flow and the strength of sewer effluent. The potential capacity demanded is therefore proportional to the type of customer (i.e. residential, low-, medium-, or high-strength commercial, etc.).

The number of equivalent dwelling units (EDU’s) is used as a variable for the potential demand that each customer can place on the sewer system. An EDU is the amount of capacity required by a single-family residential customer in the system and it is utilized as the common denominator for assessing future customer impacts on the utility. A significant portion of a sewer system’s capacity, and in turn, the utility’s fixed capital costs, are related to meeting system capacity requirements. Therefore, the capacity fee for a new service will be proportional to the number of EDU’s assigned to each connecting customer.

Based on population trends between 2019-2024 for the City of Oakley, the estimated number of EDU’s to connect to the wastewater system over the next 10 years were estimated by District staff to be 340 new connections annually, which equates to 3,400 future EDU’s between FY 25/26 and FY 35/36. The result of the analysis on estimated capacity allocation between existing EDU’s and future EDU’s is summarized in **Figure 1**.

Figure 1. Estimated Capacity Allocation

Wastewater Treatment Plant Capacity ¹	Existing EDU's	Future EDU's ²	Total EDU's
Existing vs. Potential Future Connections	17,164	3,400	20,564
Capacity Allocation to Existing & Future Customers	83.5%	16.5%	100%

1. Capacity is allocated to existing and future EDU's based on the number of new connections that are expected to connect.
2. Capacity used by future customers is assumed to be based on approximately 340 new connections annually over the next 10 years. Growth estimates provided by District staff based on City of Oakley Population Trends, 2019-2024.

The resulting allocation of costs to future EDU’s based on the wastewater treatment plant capacity allocation analysis, as shown in **Figure 2**, is 83.5% allocated to existing EDU’s and 16.5% allocated to future EDU’s.

Figure 2. Projected Customer Growth by EDU’s

Demographic Statistics ¹	Existing vs. Future Connections			Existing vs. Future Connections (%)		
	Existing EDU's	Future EDU's	Total	Existing EDU's	Future EDU's	Total
Number of EDUs	17,164	3,400	20,564	83.5%	16.5%	100%

1. Based on calculation in Table 4 for future customers and estimated daily flow per account in Table 3.

2.2 Existing and Planned Future Assets

The sewer utility’s capital assets include existing assets (i.e., the system buy-in). For the sewer utility, the District’s asset cost list was provided in current year dollars, with current assets valued as of June 30, 2024. The estimated replacement cost was developed as the cost basis for the new sewer capital facility fees. An

important aspect of this study is how the value of existing utility assets is determined. For example, the purchase price does not account for wear and tear, and current book value (purchase price less accumulated depreciation) typically underestimates the “true value” of facilities as it does not account for cost increases over time. Therefore, this study uses the replacement cost new less depreciation (RCNLD) approach to calculate the system buy-in cost bases summarized in in **Figure 3** to estimate existing asset values, because it provides an up-to-date asset value that reflects estimated cost inflation. "Replacement cost new less depreciation" refers to the actual cash value of an asset, meaning the cost of replacing it with a new one minus the amount it has depreciated due to age, wear and tear, or other factors. In essence, it's the current worth of the asset, reflecting its reduced value from its original, new state.

Figure 3. Summary of Existing Asset Values

Asset Category ¹	Original Values ¹		Asset Cost Less Depreciation	Replacement Value ²		System Buy-In Cost Basis ³
	Asset Cost	Depreciation to Date		Asset Cost	Depreciation to Date	
Sewer System Assets						
Collection System and Pipelines	\$ 68,710,013	\$ 38,823,202	\$ 29,886,810	\$ 138,449,586	\$ 91,204,760	\$ 47,244,826
Equipment, Furniture, and Fixtures	25,446,488	15,747,876	9,698,612	37,997,867	22,021,925	15,975,941
Land	7,650,285	-	7,650,285	-	-	-
Land Improvements	2,488,840	1,342,986	1,145,854	-	-	-
Plant and Improvements	51,634,972	17,847,821	33,787,151	89,627,328	32,364,221	57,263,107
Software	44,023	44,023	-	-	-	-
Vehicles and Vessels	2,309,918	1,715,258	594,660	1,969,917	1,120,086	849,831
Total Capital Facilities & Equipment	\$ 158,284,538	\$ 75,521,166	\$ 82,763,372	\$ 268,044,697	\$ 146,710,993	\$ 121,333,705

1. Current assets are valued as of June 30, 2024. Fully depreciated assets have been excluded from this analysis. Source file: *Fixed Asset Schedule 6-30-24*.
2. The replacement value takes into account the estimated cost inflation noted in Footnote 3.
3. System Buy-In Cost Basis is calculated by escalating the book values from service date to June 2024 values using historical cost inflation factors from the Handy-Whitman Index of Public Utility Construction Costs for Water Utility Construction in the Pacific Region. The percentage change in the asset cost is shown in Exhibit 3 in Column O labeled "Adjusted % of Original Value."

Most of the RCNLD costs were allocated to existing users based on the 83.5 percent allocation factor shown in Figure 2 (and 16.5 percent allocation factor for future users). The resulting allocation of existing system assets to existing and future users is shown in **Figure 4** where future users are allocated approximately \$20.1 million of existing sewer assets.

Figure 4. Existing Asset Values Allocated to Future EDU’s

Asset Category ¹	System Buy-In Cost Basis (Current Year \$)	Allocation Basis (%) ²		Distribution of Cost Basis (\$)	
		Existing EDU's	Future EDU's	Existing EDU's	Future EDU's
Sewer System Assets					
Collection System and Pipelines	\$ 47,244,826	83.5%	16.5%	\$ 39,433,485	\$ 7,811,341
Equipment, Furniture, and Fixtures	15,975,941	83.5%	16.5%	13,334,519	2,641,422
Land	-	83.5%	16.5%	-	-
Land Improvements	-	83.5%	16.5%	-	-
Plant and Improvements	57,263,107	83.5%	16.5%	47,795,369	9,467,738
Software	-	83.5%	16.5%	-	-
Vehicles and Vessels	849,831	83.5%	16.5%	709,322	140,509
Total Capital Facilities & Equipment	\$ 121,333,705	83.5%	16.5%	\$ 101,272,695	\$ 20,061,009

1. Current assets are valued as of June 30, 2024. Fully depreciated assets have been excluded from this analysis. Source file: *Fixed Asset Schedule 6-30-24*.
2. Based on proportionate allocation between existing and future users. See Table 2 in Exhibit 1 for demographic expectations.

The District’s capital improvement plans (CIP) extend through FY 34/35 for sewer system projects. The estimated cost of planned future improvements is used to calculate the system development component of the capital facility fee. Future EDU’s were allocated about \$18.8 million of these future capital project costs,

as shown in **Figure 5**. Full details of all CIP projects included in the analysis and the distribution of cost basis between existing and future EDU's are found in Appendix Table 10.

Figure 5. Planned Asset Values Allocated to Future EDU's

Capital Project Description ¹	Current Cost Estimate (Current Year \$)	External Funding ²	System Development Cost Basis	% Allocation		Distribution of Cost Basis (\$)	
				Existing EDU's	Future EDU's	Existing EDU's	Future EDU's
Collection System Program							
Total	\$ 83,405,500	\$ 17,541,000	\$ 65,864,500	71.5%	28.5%	\$ 47,083,747	\$ 18,780,753

1. Capital project costs were provided by District Staff. Source file: Ten Year CIP FY 2025-26 JMP

2. External funding includes anticipated grant and loan funding for future projects.

2.3 Adjustment to the Cost Basis

Before the capacity fees are developed, an adjustment was made to the cost basis to account for outstanding debt. The credit to the cost basis stems from outstanding revenue bonds that are being repaid from user charges. EDU's paying a capacity fee are paying for a share of the system up front. Once the new customer connects to the system they will pay the same user charges as existing EDU's. But some of these facilities that were the basis for the capacity fee were at least partially funded with revenue bonds that will be paid in future years. Because the new customer will also be repaying for debt repayment through their user charge, including the remaining outstanding debt principal on those same assets would double count the asset values included in the capacity fees. For this reason, a credit is given for the value of future principal debt payments to avoid this double charging of new EDU's. **Figure 6** shows the credit provided to future users is approximately \$3.6 million, or 16.5% of the total outstanding principal costs.

Figure 6. Outstanding Debt Allocated to Future EDU's

Outstanding Debt	Outstanding Principal	% Allocation ³		\$ Allocation	
		Existing EDU's	Future EDU's	Existing EDU's	Future EDU's
SWRCB State Revolving Fund Loan - \$62,400,000 ¹	\$ 21,840,000	83.5%	16.5%	\$ 18,229,029	\$ 3,610,971
Grand Total	\$ 21,840,000	83.5%	16.5%	\$ 18,229,029	\$ 3,610,971

1. Source file: SWRCB Complete Loan Agreement.pdf

2.4 Calculated Capacity Fees

The sum of the existing and planned asset values (that is, the system buy-in and system expansion costs), along with the adjustment for outstanding principal payments, defines the total cost basis allocated to future EDU's. **Figure 7** summarizes how this cost basis is developed.

Figure 7. Summary of Cost Basis for Future EDU's

System Asset Values Allocated to Future Customers	Replacement Cost
<i>Existing and Planned Assets:</i>	
Existing System Buy-In ¹	\$ 20,061,009
Future System Expansion ²	18,780,753
Total: Existing & Future System Costs	\$ 38,841,762
<i>Adjustments to Cost Basis:</i>	
Outstanding Long-Term Debt (Principal) ³	\$ (3,610,971)
Total: Adjustments to Cost Basis	\$ (3,610,971)
Total Adjusted Cost Basis for New EDU's	\$ 35,230,791

1. Refer to Exhibit 2 for summary of existing assets.
2. Refer to Exhibit 5 for detail related to planned capital assets.
3. Refer to Exhibit 4 for detail related to outstanding debt.

The total adjusted cost basis is then divided by the number of future EDU's, measured in EDU's, expected to connect to the system (that is, the 3,400 EDU's shown in Figure 2). The calculation for the base wastewater capacity fee is shown in **Figure 8**.

Figure 8. Summary of New Base Sewer Capacity Fee

Calculation of Proposed Sewer Capacity Charge	Capacity Fee
Adjusted System Cost Basis	\$ 35,230,791
Planned Additional EDUs ¹	3,400
Calculated Capacity Charge Per EDU	\$ 10,360
<i>Current Capacity Charge Per EDU²</i>	<i>\$ 9,653</i>

1. Refer to Exhibit 1 for customer growth projections.
2. Current connection fee for residential customers, FY 24/25.

The EDU's assigned to a given customer is a measure of expected impact on the sewer utility relative to the customer's expected flow and the strength of effluent (BOD and TSS). One EDU is equivalent to one single family dwelling unit. Customer class definitions by facility description for new connecting EDU's are shown in Table 18 of the Appendix. EDU assignments are based on customer classification (type of use at the property) by District staff and follows the maximum values for flow, BOD and TSS as shown in Table 18 of the Appendix. The EDU assignments are then used to calculate the capacity fee for connecting EDU's. **Figure 9** summarizes the proposed sewer capacity charges for the residential and non-residential customer classes on a constituent basis. Full details on the calculation of capacity fees by customer class for residential and non-residential EDU's are found in Appendix Tables 13 through 16.

Figure 9. Summary of Sewer Capacity Fees by Customer Class

Customer Class	Charge Per Constituent	Constituent Basis
Residential Customers		
Residential ¹	\$ 10,360	Per EDU
Multiple Residential ^{2,3}	\$ 4.92	Per Unit of Building Area (sf)
Accessory Dwelling Unit ³	\$ 4.92	Per Unit of Building Area (sf)
Mobile Homes ⁴	\$ 4.92	Per Unit of Building Area (sf)
Non-Residential Customers		
Institutional	\$ 5.18	Per Unit of Building Area (sf)
Commercial Low Strength	\$ 5.39	Per Unit of Building Area (sf)
Commercial Medium Strength	\$ 7.36	Per Unit of Building Area (sf)
Commercial High Strength	\$ 10.88	Per Unit of Building Area (sf)
Industrial Customers		
Industrial	\$ 32.98	Per Unit of Flow (gal/day)
	\$ 7,908	Per Unit of BOD (lbs/day)
	\$ 7,908	Per Unit of TSS (lbs/day)

1. Residential customer class includes townhouses.
2. Multiple Residential customer class includes condos and apartments.
3. In the absence of actual square footage, multiple residential and ADU's will assume 1200 sf (60% of SFR and the limit of Gov Code section 66314).
4. In the absence of actual square footage, mobile homes will assume 1600 sf (80% of SFR).

2.5 Sewer Capacity Fee Findings Statements

The new sewer capacity fees calculated in this study are based on regulatory requirements and generally accepted industry standards, and are further detailed in *Appendix A*. This study concludes the following findings:

- The purpose of the District's sewer capacity fee is to ensure that new connections reimburse and/or mitigate a reasonable portion of the District's planned capital investments. These investments benefit and/or are necessary to accommodate increased demand for sewer service.
- The District uses capacity fee proceeds to fund capital investments in the sewer system for providing capacity, which include the future design and construction of planned facilities.
- All parcels seeking permission to connect to the District's sewer system are subject to the sewer capital facility fee, payment of which is a condition of connection approval.
- Capacity fees for new sewer customers vary depending on the estimated number of EDU's the connection will serve, which is generally proportionate to the demands a parcel place on the wastewater utility system. Figure 2 illustrates the number of EDU's, along with the number of accounts currently connected to the system.
- The District has made investments in sewer infrastructure and plans to invest further in expanded and upgraded facilities. These investments make possible the availability and continued reliable provision of utility service sufficient to meet demands of growth within the District's service area.

- Without capital investment in existing facilities, the wastewater system capacity available to serve the needs of future connections would be uncertain. Without planned investments in future facilities, wastewater service would not be sustainable at the level of service enjoyed by current users. Figure 5 identifies the total value of planned wastewater system assets that are attributable to serving future connections.
- Upon payment of a capacity fee, a new customer incurs the obligation to pay the same ongoing service rates as existing customers, regardless of the date of connection to the systems or the actual start of service. Capacity fees ensure that, over time, ongoing service rates are not disproportionately burdened by the accommodation of system growth.

3. Recommendations and Next Steps

3.1 Consultant Recommendations and Next Steps

NBS recommends the District take the following actions:

- **Approve and Accept this Study Report:** NBS recommends the District Board of Directors formally approve and adopt this Study and its recommendations and proceed with the steps outlined below to implement the new sewer capacity fees. This will provide documentation of the study and the basis for adopting the new sewer capacity fees.
- **Implement Sewer Capacity Fees:** Based on the analysis presented in this report, the District Board of Directors should implement the new sewer capacity fee of **\$10,360** per EDU, as described in this study.
- **Periodically Review Capacity Fees:** Any time an Agency adopts capacity fees, they should be periodically reviewed to incorporate new capital improvement programs, significant repair and replacement projects, or new planning data (i.e. customer growth estimates). This will help ensure the fees generate sufficient revenue to cover the cost of capital projects, support the fiscal health of the Agency, and ensure future customers invest their fair share of infrastructure costs.
- **Annually Update Capacity Fees:** NBS recommends applying an inflation factor to the capacity fees on an annual basis. Annually, the District should review the Engineering News Record's Construction Cost Indices and calculate the percentage change in construction costs and apply that change to the capacity fees to ensure they keep pace with cost inflation.

3.2 Recommended Actions after Adoption of Capacity Fees

There are several requirements to fulfill after the impact fees are adopted. There are accounting, reporting, and other transparency requirements. Any fees collected must be deposited in a separate account or fund. Agencies must adopt annual reports within 180 days of the close of each fiscal year. These reports should detail what money has been collected, the beginning and ending balance of the accounts, how the money was spent, and when the identified projects will be constructed, and any refunds.

California Government Code 66001 (d)(1) requires that *“Following the fifth fiscal year following the first deposit into the account or fund, and every five years thereafter, the local agency shall make all of the following findings with respect to that portion of the account or fund remaining unexpended, whether committed or noncommitted:*

- (A) Identify the purpose to which the fee is to be put.*
- (B) Demonstrate a reasonable relationship between the fee and the purpose for which it is charged.*
- (C) Identify all sources and amounts of funding anticipated to complete financing in incomplete improvements identified...*
- (D) Designate the approximate dates on which the funding referred to in subparagraph (C) is expected to be deposited into the appropriate account or fund.*

Failure to make these findings could result in refund requirements. It is also good practice to alert finance staff and the implementing department staff on what the funds can be used for.

While the nexus study should be reviewed every few years, the California Government Code requires that the nexus study needs to be updated every 8 years. This implies that the master plans, capital improvement plans, and other documents used in the nexus study be updated as well.

3.3 Principal Assumptions and Considerations

In preparing this study and the recommendations included herein, NBS has relied on a number of principal assumptions and considerations with regard to financial matters, number of customer accounts, asset records, planned capital improvements, and other conditions and events that may occur in the future. This information and assumptions were provided by sources we believe to be reliable, although NBS has not independently verified this data.

While we believe NBS' use of such information and assumptions is reasonable for the purpose of this Study and its recommendations, some assumptions will invariably not materialize as stated herein or may vary significantly due to unanticipated events and circumstances. Therefore, the actual results can be expected to vary from those projected to the extent that actual future conditions differ from those assumed by us or provided to us by others.

Technical Appendices

These Appendices contain:

- Appendix A: Sewer Capacity Fee Study Summary Tables

Appendix A. Sewer Capacity Fee Study Summary Tables

IRONHOUSE SANITARY DISTRICT
Wastewater Capacity Fee Study
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8	Updated Capacity Fee Summary Table
9	Summary of Customer Class by Facility Description

TABLE 1 : HISTORICAL SEWER TREATMENT PLANT DATA

Month	Sewer Treatment Plant - Flow Data Average Monthly Flow (MG) ¹			
	2021	2022	2023	2024
January	2.67	2.86	3.89	2.95
February	2.63	2.69	3.12	3.10
March	2.59	2.57	3.23	2.91
April	2.55	2.56	2.88	2.83
May	2.50	2.54	2.76	2.70
June	2.46	2.53	2.68	2.66
July	2.45	2.54	2.66	2.55
August	2.52	2.57	2.66	2.55
September	2.49	2.56	2.60	2.54
October	2.57	2.53	2.61	2.54
November	2.62	2.66	2.71	2.67
December	2.93	2.86	2.81	2.77
Annual Average Daily Flow	2.58	2.62	2.88	2.73
2021-2023 Average Daily Flow²	2.70			

1. Source file: 2021-2024 INFLUENT DATA.xlsx.

2. The average of 2021-2024 "Monthly Effluent" is used as a reasonable representation of customer effluent.

TABLE 2 : SUMMARY OF SEWER TREATMENT PLANT FLOW DATA

2021-2023 Average Total Annual Flow (MG)	984.11
2021-2023 Average Daily Flow (MGD)	2.70
2021-2023 Average Total Annual Flow (G)	984,113,415

TABLE 3 : ESTIMATED EXISTING EDUS IN THE SEWER UTILITY

Estimated Existing EDUs ¹	
Number of Existing Equivalent Dwelling Units	17,164
Estimated Daily Flow per EDU (gal)	157

1. Existing Equivalent Dwelling UNits provided by District based on FY 2024/25 ISD Final Roll for Sewer Service Charges.

TABLE 4 : ESTIMATED CAPACITY ALLOCATION

Wastewater Treatment Plant Capacity ¹	Existing EDU's	Future EDU's ²	Total EDU's
Existing vs. Potential Future Connections	17,164	3,400	20,564
Capacity Allocation to Existing & Future Customers	83.5%	16.5%	100%

- Capacity is allocated to existing and future EDU's based on the number of new connections that are expected to connect.
- Capacity used by future customers is assumed to be based on approximately 340 new connections annually over the next 10 years.
Growth estimates provided by District staff based on City of Oakley Population Trends, 2019-2024.

TABLE 5 : EXISTING AND FUTURE CUSTOMERS

Demographic Statistics ¹	Existing vs. Future Connections			Existing vs. Future Connections (%)		
	Existing EDU's	Future EDU's	Total	Existing EDU's	Future EDU's	Total
Number of EDUs	17,164	3,400	20,564	83.5%	16.5%	100%

- Based on calculation in Table 4 for future customers and estimated daily flow per account in Table 3.

TABLE 6 : EXISTING ASSETS - ORIGINAL AND REPLACEMENT VALUE

Asset Category ¹	Original Values ¹		Asset Cost Less Depreciation	Replacement Value ²		System Buy-In Cost Basis ³
	Asset Cost	Depreciation to Date		Asset Cost	Depreciation to Date	
Sewer System Assets						
Collection System and Pipelines	\$ 68,710,013	\$ 38,823,202	\$ 29,886,810	\$ 138,449,586	\$ 91,204,760	\$ 47,244,826
Equipment, Furniture, and Fixtures	25,446,488	15,747,876	9,698,612	37,997,867	22,021,925	15,975,941
Land	7,650,285	-	7,650,285	-	-	-
Land Improvements	2,488,840	1,342,986	1,145,854	-	-	-
Plant and Improvements	51,634,972	17,847,821	33,787,151	89,627,328	32,364,221	57,263,107
Software	44,023	44,023	-	-	-	-
Vehicles and Vessels	2,309,918	1,715,258	594,660	1,969,917	1,120,086	849,831
Total Capital Facilities & Equipment	\$ 158,284,538	\$ 75,521,166	\$ 82,763,372	\$ 268,044,697	\$ 146,710,993	\$ 121,333,705

1. Current assets are valued as of June 30, 2024. Fully depreciated assets have been excluded from this analysis. Source file: *Fixed Asset Schedule 6-30-24*.
2. The replacement value takes into account the estimated cost inflation noted in Footnote 3.
3. System Buy-In Cost Basis is calculated by escalating the book values from service date to June 2024 values using historical cost inflation factors from the Handy-Whitman Index of Public Utility Construction Costs for Water Utility Construction in the Pacific Region. The percentage change in the asset cost is shown in Exhibit 3 in Column O labeled "Adjusted % of Original Value."

TABLE 7 : ALLOCATION OF EXISTING ASSETS TO EXISTING AND FUTURE SEWER CUSTOMERS

Asset Category ¹	System Buy-In Cost Basis (Current Year \$)	Allocation Basis (%) ²			Distribution of Cost Basis (\$)		
		Exclude from Analysis	Existing EDU's	Future EDU's	Exclude from Analysis	Existing EDU's	Future EDU's
Sewer System Assets							
Collection System and Pipelines	\$ 47,244,826	0.0%	83.5%	16.5%	\$ -	\$ 39,433,485	\$ 7,811,341
Equipment, Furniture, and Fixtures	15,975,941	0.0%	83.5%	16.5%	-	13,334,519	2,641,422
Land	-	0.0%	83.5%	16.5%	-	-	-
Land Improvements	-	0.0%	83.5%	16.5%	-	-	-
Plant and Improvements	57,263,107	0.0%	83.5%	16.5%	-	47,795,369	9,467,738
Software	-	0.0%	83.5%	16.5%	-	-	-
Vehicles and Vessels	849,831	0.0%	83.5%	16.5%	-	709,322	140,509
Total Capital Facilities & Equipment	\$ 121,333,705	0.0%	83.5%	16.5%	\$ -	\$ 101,272,695	\$ 20,061,009

1. Current assets are valued as of June 30, 2024. Fully depreciated assets have been excluded from this analysis. Source file: *Fixed Asset Schedule 6-30-24*.
2. Based on proportionate allocation between existing and future users. See Table 2 in Exhibit 1 for demographic expectations.

TABLE 8 : ALLOCATION OF DEBT TO EXISTING AND FUTURE USERS

Outstanding Debt	Outstanding Principal	% Allocation ³			\$ Allocation	
		Exclude from Analysis	Existing EDU's	Future EDU's	Existing EDU's	Future EDU's
SWRCB State Revolving Fund Loan - \$62,400,000 ¹	\$ 21,840,000	0.0%	83.5%	16.5%	\$ 18,229,029	\$ 3,610,971
Grand Total	\$ 21,840,000	0.0%	83.5%	16.5%	\$ 18,229,029	\$ 3,610,971

1. Source file: SWRCB Complete Loan Agreement.pdf

TABLE 9 : ALLOCATION OF CASH RESERVES TO EXISTING AND FUTURE USERS

Cash Reserves ¹	Beginning Cash	% Allocation			\$ Allocation	
		Exclude from Analysis	Existing EDU's	Future EDU's	Existing EDU's	Future EDU's
Cash	\$ 32,020,021	100.0%	0.0%	0.0%	\$ -	\$ -
Total Beginning Cash	\$ 32,020,021				\$ -	\$ -

1. Total beginning cash as of July 1, 2024.

TABLE 10 : ALLOCATION OF PLANNED CAPITAL IMPROVEMENT COSTS TO EXISTING AND FUTURE SEWER CUSTOMERS

Capital Project Description ¹	Current Cost Estimate (Current Year \$)	External Funding ²	System Development Cost Basis	% Allocation		Distribution of Cost Basis (\$)	
				Existing EDU's	Future EDU's	Existing EDU's	Future EDU's
Collection System Program							
Structural Asset Rehab/maintenance		\$ -	\$ -	83.5%	16.5%	\$ -	\$ -
Linear Asset Rehab/Maintenance	-	-	-	83.5%	16.5%	-	-
Garage Extension Design	-	-	-	83.5%	16.5%	-	-
Superintendent Truck	-	-	-	83.5%	16.5%	-	-
Design of Pipeline Infrastructure Replacement	-	-	-	83.5%	16.5%	-	-
F350 with Utility Box or ZEV equivalent	-	-	-	83.5%	16.5%	-	-
710 John Deere Backhoe or 7T Dump Truck	-	-	-	83.5%	16.5%	-	-
Stationary Generator for Admin/Shop	900,000	-	900,000	83.5%	16.5%	751,196	148,804
Emergency East Cypress	-	-	-	83.5%	16.5%	-	-
Bethel island Infiltration Project	-	-	-	83.5%	16.5%	-	-
Reimbursement CCC communities, LLC	-	-	-	0.0%	100.0%	-	-
Force Main Inspection	1,225,000	-	1,225,000	83.5%	16.5%	1,022,462	202,538
14-inch Parallel FM	15,350,000	17,541,000	(2,191,000)	0.0%	100.0%	-	(2,191,000)
Manhole Rehab/Linear Asset Spot Repairs	875,000	-	875,000	83.5%	16.5%	730,330	144,670
Collection System Modeling	150,000	-	150,000	83.5%	16.5%	125,199	24,801
Collection System Renovation Program- Phase 1	4,500,000	-	4,500,000	83.5%	16.5%	3,755,981	744,019
Collection System Renovation Program- Phase 2	1,400,000	-	1,400,000	83.5%	16.5%	1,168,528	231,472
Collection System Renovation Program- Phase 3	350,000	-	350,000	83.5%	16.5%	292,132	57,868
Electrical Control Panels	50,000	-	50,000	83.5%	16.5%	41,733	8,267
SCADA	695,000	-	695,000	83.5%	16.5%	580,090	114,910
CMMS/GIS Updates	200,000	-	200,000	83.5%	16.5%	166,933	33,067
MCC/PLC/Radio Upgrades	730,000	-	730,000	83.5%	16.5%	609,304	120,696
Fleet Truck Replacement	600,000	-	600,000	83.5%	16.5%	500,798	99,202
Equipment and Spare parts	500,000	-	500,000	83.5%	16.5%	417,331	82,669
Boom Truck	450,000	-	450,000	83.5%	16.5%	375,598	74,402
Vacuum Truck	850,000	-	850,000	83.5%	16.5%	709,463	140,537
Jet Rodder	400,000	-	400,000	83.5%	16.5%	333,865	66,135
Easment Rodder	85,000	-	85,000	83.5%	16.5%	70,946	14,054
New Excavator	100,000	-	100,000	83.5%	16.5%	83,466	16,534
CS Bldg EV Charging Stations	50,000	-	50,000	83.5%	16.5%	41,733	8,267
CS Bldg Maintenance Garage Expansion	450,000	-	450,000	83.5%	16.5%	375,598	74,402
Pump Stations Upgrade Program	645,000	-	645,000	83.5%	16.5%	538,357	106,643
BH - Bridgehead	35,000	-	35,000	83.5%	16.5%	29,213	5,787
BIP - Bethel Island Ponds	30,000	-	30,000	83.5%	16.5%	25,040	4,960
CG - Cypress Grove	10,000	-	10,000	83.5%	16.5%	8,347	1,653
D1 - Dutch Slough	10,000	-	10,000	83.5%	16.5%	8,347	1,653
ER1 - Emerson Ranch	66,000	-	66,000	83.5%	16.5%	55,088	10,912
G1 - Gateway 1	266,000	-	266,000	83.5%	16.5%	222,020	43,980
G2 - Gateway 2	50,000	-	50,000	83.5%	16.5%	41,733	8,267
G3 - Gateway 3	29,000	-	29,000	83.5%	16.5%	24,205	4,795
GR1 - Gilbert Ranch	15,000	-	15,000	83.5%	16.5%	12,520	2,480
ISD - District Office	14,500	-	14,500	83.5%	16.5%	12,103	2,397
IW - Ironwood	33,000	-	33,000	83.5%	16.5%	27,544	5,456
L1 - Lauritzen	25,000	-	25,000	83.5%	16.5%	20,867	4,133

IRONHOUSE SANITARY DISTRICT
Wastewater Capacity Fee Study
Planned Capital Facilities and Asset Improvements

Exhibit 5 - Planned Assets

LH - Laurel Heights	330,000	-	330,000	83.5%	16.5%	275,439	54,561
MC - Marsh Creek	25,000	-	25,000	83.5%	16.5%	20,867	4,133
MPS - Main Pump	180,000	-	180,000	83.5%	16.5%	150,239	29,761
P1 - Piper 1	21,000	-	21,000	83.5%	16.5%	17,528	3,472
QV - Quail Valley	15,000	-	15,000	83.5%	16.5%	12,520	2,480
S1 - Stone 1	28,000	-	28,000	83.5%	16.5%	23,371	4,629
S2 - Stone 2	30,000	-	30,000	83.5%	16.5%	25,040	4,960
SL1 - Summer Lakes 1	1,520,000	-	1,520,000	50.0%	50.0%	760,000	760,000
SL2 - Summer Lakes 2	-	-	-	83.5%	16.5%	-	-
SL3 - Summer Lakes 3	-	-	-	83.5%	16.5%	-	-
SM1 - Sandmound 1	17,000	-	17,000	83.5%	16.5%	14,189	2,811
SM2 - Sandmound 2	40,000	-	40,000	83.5%	16.5%	33,387	6,613
T1 - Taylor 1	26,000	-	26,000	83.5%	16.5%	21,701	4,299
T2 - Taylor 2	30,000	-	30,000	83.5%	16.5%	25,040	4,960
T3 - Taylor 3	35,000	-	35,000	83.5%	16.5%	29,213	5,787
VP- Vintage Parkway	50,000	-	50,000	83.5%	16.5%	41,733	8,267
W1 - Willow 1	12,000	-	12,000	83.5%	16.5%	10,016	1,984
W2 - Willow 2	15,000	-	15,000	83.5%	16.5%	12,520	2,480
W3 - Willow 3	34,000	-	34,000	83.5%	16.5%	28,379	5,621
WEB - Web	140,000	-	140,000	83.5%	16.5%	116,853	23,147
WPM - Willow Park Marina	50,000	-	50,000	83.5%	16.5%	41,733	8,267
Portable Generator Replacement	150,000	-	150,000	83.5%	16.5%	125,199	24,801
Portable Pumps Replacement	225,000	-	225,000	83.5%	16.5%	187,799	37,201
WRF Program							
WRF Planning	400,000	-	400,000	83.5%	16.5%	333,865	66,135
Influent Pump Stations Piping Upgrade	250,000	-	250,000	83.5%	16.5%	208,666	41,334
Influent Screening - Add 3rd Perf Plate Screen	1,250,000	-	1,250,000	0.0%	100.0%	-	1,250,000
Grit Removal Improvements	65,000	-	65,000	83.5%	16.5%	54,253	10,747
Grit Classifier Replacement	400,000	-	400,000	83.5%	16.5%	333,865	66,135
Drum Screen 2&3 Rehab	500,000	-	500,000	83.5%	16.5%	417,331	82,669
Install Drum Screen 4 + Wash Press	1,200,000	-	1,200,000	0.0%	100.0%	-	1,200,000
Aeration Basin Crack Repair / Paint Piping	140,000	-	140,000	83.5%	16.5%	116,853	23,147
MBR Improvement - Permeate Piping / Valves	725,000	-	725,000	83.5%	16.5%	605,130	119,870
UV Wiper/Ram Replacement	1,630,000	-	1,630,000	0.0%	100.0%	-	1,630,000
UV Effluent Gate Installation	275,000	-	275,000	0.0%	100.0%	-	275,000
Effluent Pipe Line Rehabilitation	200,000	-	200,000	83.5%	16.5%	166,933	33,067
Scheduled Equipment Replacement	12,300,000	-	12,300,000	83.5%	16.5%	10,266,349	2,033,651
Electrical Improvements	800,000	-	800,000	83.5%	16.5%	667,730	132,270
SCADA	1,500,000	-	1,500,000	83.5%	16.5%	1,251,994	248,006
PLC Upgrades	2,500,000	-	2,500,000	83.5%	16.5%	2,086,656	413,344
Biosolids Improvement (Facility)	15,000,000	-	15,000,000	50.0%	50.0%	7,500,000	7,500,000
South Pond Return	75,000	-	75,000	83.5%	16.5%	62,600	12,400
Operations & Maintenance Facility	750,000	-	750,000	83.5%	16.5%	625,997	124,003
Wet Weather Facilities Improvements	500,000	-	500,000	83.5%	16.5%	417,331	82,669
Old WWTP facilities Demolition	350,000	-	350,000	83.5%	16.5%	292,132	57,868
WRF EV Charging Stations	70,000	-	70,000	83.5%	16.5%	58,426	11,574
Storm Pond Return line	700,000	-	700,000	83.5%	16.5%	584,264	115,736
Seal Coating Roadways	300,000	-	300,000	83.5%	16.5%	250,399	49,601
Security System Upgrades	250,000	-	250,000	83.5%	16.5%	208,666	41,334

IRONHOUSE SANITARY DISTRICT
Wastewater Capacity Fee Study
Planned Capital Facilities and Asset Improvements

Exhibit 5 - Planned Assets

Effluent Pipe Line Inspections (External & Cathodic)	90,000	-	90,000	83.5%	16.5%	75,120	14,880
Wash Water Pumps (headworks)	100,000	-	100,000	83.5%	16.5%	83,466	16,534
Bird Mitigation	100,000	-	100,000	83.5%	16.5%	83,466	16,534
Utility Water Pipe Rehabilitation	750,000	-	750,000	83.5%	16.5%	625,997	124,003
GW Well Access & Protection Improvements	50,000	-	50,000	83.5%	16.5%	41,733	8,267
Expand Aerobic Digester (use anaerobic)	165,000	-	165,000	0.0%	100.0%	-	165,000
Utility Truck Replacement	125,000	-	125,000	83.5%	16.5%	104,333	20,667
Perimeter Landscaping	200,000	-	200,000	83.5%	16.5%	166,933	33,067
Solar System and Battery Improvements	1,250,000	-	1,250,000	50.0%	50.0%	625,000	625,000
Spare Influent Pump and Solids Conveyor	50,000	-	50,000	83.5%	16.5%	41,733	8,267
Pond Maintenance/Improvements	50,000	-	50,000	83.5%	16.5%	41,733	8,267
LED Lighting Upgrades	150,000	-	150,000	83.5%	16.5%	125,199	24,801
General Improvement Program							
Capital legal Services	500,000	-	500,000	83.5%	16.5%	417,331	82,669
Technology Master Plan	300,000	-	300,000	83.5%	16.5%	250,399	49,601
ERP Implementation Project	1,200,000	-	1,200,000	83.5%	16.5%	1,001,595	198,405
Admin. Bldg EV Charging Stations	15,000	-	15,000	83.5%	16.5%	12,520	2,480
Admin Bldg Improvements	140,000	-	140,000	83.5%	16.5%	116,853	23,147
Furniture	25,000	-	25,000	83.5%	16.5%	20,867	4,133
IT Equipment	50,000	-	50,000	83.5%	16.5%	41,733	8,267
TV Monitor in Conference Room	15,000	-	15,000	83.5%	16.5%	12,520	2,480
Solar Project Expansion (PPA)	250,000	-	250,000	83.5%	16.5%	208,666	41,334
Road Maintenance	50,000	-	50,000	83.5%	16.5%	41,733	8,267
LED Sign	20,000	-	20,000	83.5%	16.5%	16,693	3,307
Security Improvements	25,000	-	25,000	83.5%	16.5%	20,867	4,133
Fleet and Vehicle Replacement	250,000	-	250,000	83.5%	16.5%	208,666	41,334
Sidewalks and Lighting	35,000	-	35,000	83.5%	16.5%	29,213	5,787
Repaint the Admin Building	30,000	-	30,000	83.5%	16.5%	25,040	4,960
Upgrade monitors in Board room	15,000	-	15,000	83.5%	16.5%	12,520	2,480
Recycled Water Program							
Capital Costs Associated with EPA Grant *		-	-	83.5%	16.5%	-	-
Residential Fill Station Paving	9,000	-	9,000	83.5%	16.5%	7,512	1,488
Residential Fill Stations Rehab.	50,000	-	50,000	83.5%	16.5%	41,733	8,267
REW Storage	250,000	-	250,000	83.5%	16.5%	208,666	41,334
REW Pumping and Distribution System	195,000	-	195,000	83.5%	16.5%	162,759	32,241
Demonstration Gardens	350,000	-	350,000	83.5%	16.5%	292,132	57,868
Jersey Island Program							
Road maintenance	100,000	-	\$ 100,000	83.5%	16.5%	\$ 83,466	\$ 16,534
Bldg maintenance	20,000	-	20,000	83.5%	16.5%	16,693	3,307
Fleet and Vehicle Replacement	190,000	-	190,000	83.5%	16.5%	158,586	31,414
Ditch maintenance	-	-	-	83.5%	16.5%	-	-
Ford ranger (Repalcement of 2008 Trck)	-	-	-	83.5%	16.5%	-	-
Repair of Office Trailers	-	-	-	83.5%	16.5%	-	-
Total	\$ 83,405,500	\$ 17,541,000	\$ 65,864,500	71.5%	28.5%	\$ 47,083,747	\$ 18,780,753

1. Capital project costs were provided by District Staff. Source file: *Ten Year CIP FY 2025-26 JMP*
2. External funding includes anticipated grant and loan funding for future projects.

TABLE 11 : SUMMARY OF COSTS ALLOCATED TO FUTURE SEWER CUSTOMERS

System Asset Values Allocated to Future Customers	Replacement Cost
<i>Existing and Planned Assets:</i>	
Existing System Buy-In ¹	\$ 20,061,009
Future System Expansion ²	18,780,753
Total: Existing & Future System Costs	\$ 38,841,762
<i>Adjustments to Cost Basis:</i>	
Outstanding Long-Term Debt (Principal) ³	\$ (3,610,971)
Total: Adjustments to Cost Basis	\$ (3,610,971)
Total Adjusted Cost Basis for New EDU's	\$ 35,230,791

1. Refer to Exhibit 2 for summary of existing assets.
2. Refer to Exhibit 5 for detail related to planned capital assets.
3. Refer to Exhibit 4 for detail related to outstanding debt.

TABLE 12 : CALCULATION OF THE SEWER BASE CAPACITY FEE PER EDU

Calculation of Proposed Sewer Capacity Charge	Capacity Fee
Adjusted System Cost Basis	\$ 35,230,791
Planned Additional EDUs ¹	3,400
Calculated Capacity Charge Per EDU	\$ 10,360
<i>Current Capacity Charge Per EDU²</i>	<i>\$ 9,653</i>

1. Refer to Exhibit 1 for customer growth projections.
2. Current connection fee for residential customers, FY 24/25 per District's existing fee schedule.

TABLE 13 - BREAKDOWN OF CAPACITY FEE PER EDU FOR RESIDENTIAL CUSTOMERS

Calculation Factor	\$/EDU	Flow (gpd) ²	BOD (mg/l) ³	TSS (mg/l) ³
Capacity Fee (\$/EDU)	\$ 10,360			
Standard EDU (per SFR)	--	157 gpd	250 Mg/l	250 Mg/l
Proportional EDUs ¹	1.00	0.50	0.25	0.25
Charge/Constituent	\$ 10,360	\$ 5,180	\$ 2,590	\$ 2,590
Total Capacity Fee per EDU			\$10,360	

1. Proportional EDU breakdown assumes 50% Flow, 25% BOD and 25% TSS based on cost-of-service allocation from District's 2020 Sewer Rate Study.
2. Flow is based on consumption and billing data.
3. Residential Standard Classification. Source File: AASFC_Valuation and Fees Template_LASAN.XLSX.

TABLE 14 - EXAMPLE CALCULATION OF CAPACITY FEE PER EDU FOR HYPOTHETICAL NON-RESIDENTIAL CUSTOMER

Calculation Factor		\$/EDU	Flow (gpd)	BOD (mg/l)	TSS (mg/l)
Capacity Fee (\$/EDU)¹	A	\$ 10,360			
Standard EDU (per SFR) ²	B	157 gpd	157 gpd	250 Mg/l	250 Mg/l
Non-SFR Effluent Values³	C	--	400 gpd	500 Mg/l	500 Mg/l
Single-Constituent EDU (= C / B)	D	--	2.55	2.00	2.00
Proportional EDUs ⁴	E	1.00	0.50	0.25	0.25
Non-SFR EDU's (= D * E * D (flow EDU))⁵	F	--	1.27	1.27	1.27
Total EDUs⁶				3.82	
Charge/Constituent (= F * A)			\$13,190	\$13,190	\$13,190
Total Non-SFR Capacity Fee⁷				\$39,571	

1. Capacity fee per EDU.
2. Standard flow and strength values per EDU. This determines the relationship of the connecting customer to a standard EDU.
3. Flow is based on customer data provided by District staff.
4. Proportion of each constituent to an EDU factor. Standard proportion of 50% Flow, 25% BOD and 25% TSS is assumed based on District's 2020 Sewer Rate Study.
5. Determination of the EDUs calculated for each constituent.
6. Total EDUs is the sum of the EDUs for each constituent shown in the row above.
7. Total capacity fee is the sum of the charge for each constituent shown in the row above.

TABLE 15 - CALCULATION OF CAPACITY FEE PER EDU FOR NON-RESIDENTIAL CUSTOMERS

Calculation Factor	Flow (gpd)	Flow (\$)	BOD (mg/l)	BOD (\$)	TSS (mg/l)	TSS (\$)	Total Non-SRF Capacity Fee (\$)	Total Non-SRF Capacity Fee (\$/sf) ¹
Customer Class		A		B		C	= A + B + C	
Multiple Residential	141 gpd	\$4,662	250 Mg/l	\$2,590	250 Mg/l	\$2,590	\$9,842	4.92
ADU	141 gpd	\$4,662	250 Mg/l	\$2,590	250 Mg/l	\$2,590	\$9,842	4.92
Mobile Home	141 gpd	\$4,662	250 Mg/l	\$2,590	250 Mg/l	\$2,590	\$9,842	4.92
Institutional	157 gpd	\$5,180	250 Mg/l	\$2,590	250 Mg/l	\$2,590	\$10,360	5.18
Commercial Low Strength	157 gpd	\$5,180	265 Mg/l	\$2,745	275 Mg/l	\$2,849	\$10,774	5.39
Commercial Medium Strength	157 gpd	\$5,180	550 Mg/l	\$5,698	370 Mg/l	\$3,833	\$14,711	7.36
Commercial High Strength	157 gpd	\$5,180	1,000 Mg/l	\$10,360	600 Mg/l	\$6,216	\$21,756	10.88

1. Based on average building area in City of Oakley of: 2,000 sf

TABLE 16 - CALCULATION OF CAPACITY FEE PER CONSTITUENT FOR SIGNIFICANT INDUSTRIAL CUSTOMERS

Calculation Factor	Flow (MGD) ²	BOD (lbs/day) ³	TSS (lbs/day) ³
Capacity Fee			
Constituents for Standard EDU (SFR)	0.000157	0.327522	0.327522
Proportional EDUs per Constituent ¹	0.50	0.25	0.25
Charge/Constituent	\$ 32,975,848	\$ 7,908	\$ 7,908

1. Proportion of each constituent to an EDU factor. Standard proportion of 50% Flow, 25% BOD and 25% TSS is assumed based on District's 2020 Sewer Rate Study.
2. Unit conversion: 157 gpd equals 0.000157 MGD of flow.
3. Unit conversion: 250 mg/L equals 0.32722 lbs/day of BOD and TSS, respectively.

TABLE 17 - CAPACITY FEE SUMMARY TABLE

Customer Class	Charge Per Constituent	Constituent Basis
Residential Customers		
Residential ¹	\$ 10,360	Per EDU
Multiple Residential ^{2,3}	\$ 4.92	Per Unit of Building Area (sf)
Accessory Dwelling Unit ³	\$ 4.92	Per Unit of Building Area (sf)
Mobile Homes ⁴	\$ 4.92	Per Unit of Building Area (sf)
Non-Residential Customers		
Institutional	\$ 5.18	Per Unit of Building Area (sf)
Commercial Low Strength	\$ 5.39	Per Unit of Building Area (sf)
Commercial Medium Strength	\$ 7.36	Per Unit of Building Area (sf)
Commercial High Strength	\$ 10.88	Per Unit of Building Area (sf)
Industrial Customers		
Industrial	\$ 32.98	Per Unit of Flow (gpd)
	\$ 7,908	Per Unit of BOD (lbs/day)
	\$ 7,908	Per Unit of TSS (lbs/day)

1. Residential customer class includes townhouses.
2. Multiple Residential customer class includes condos and apartments.
3. In the absence of actual square footage, multiple residential and ADU's will assume 1200 sf (60% of SFR and the limit of Gov Code section 66314).
4. In the absence of actual square footage, mobile homes will assume 1600 sf (80% of SFR).

TABLE 18 - CUSTOMER CLAS BY FACILITY DESCRIPTION SUMMARY TABLE

Line No.	FACILITY DESCRIPTION	PROPOSED SGF ¹ IN GPD	BOD (mg/l)	SS (mg/l)	Customer Class
1	Acupuncture Office/Clinic	120/1,000 Gr SF	265	275	Commercial Low Strength
2	Arcade - Video Games	50/1,000 Gr SF	265	275	Commercial Low Strength
3	Auditorium (a)	3/Seat	265	275	Commercial Low Strength
4	Auto Parking (a)	20/1,000 Gr SF	265	275	Commercial Low Strength
5	Auto Mfg., Service Maintenance (b)	Actual	1,260	1,165	Industrial
6	Bakery	280/1,000 Gr SF	3,020	2,540	Industrial
7	Bank: Headquarters	120/1,000 Gr SF	265	275	Commercial Low Strength
8	Bank: Branch	50/1,000 Gr SF	265	275	Industrial
9	Ballroom	350/1,000 Gr SF	265	275	Industrial
10	Banquet Room	350/1,000 Gr SF	265	275	Commercial Low Strength
11	Bar: Cocktail, Fixed Set (a) (c)	15/Seat	265	275	Industrial
12	Bar: Juice, No Baking Facilities (d)	720/1,000 Gr SF	265	275	Industrial
13	Bar: Juice, with Baking Facilities (d)	720/1,000 Gr SF	265	275	Commercial Low Strength
14	Bar: Cocktail, Public Table Area (c)	720/1,000 Gr SF	265	275	Industrial
15	Barber Shop	120/1,000 Gr SF	265	275	Industrial
16	Barber Shop (s)	15/Stall	265	275	Commercial Low Strength
17	Beauty Parlor	425/1,000 Gr SF	265	275	Industrial
18	Beauty Parlor (s)	50/Stall	265	275	Industrial
19	Bldg. Const/Field Office (e)	120/Office	265	275	Commercial Low Strength
20	Bowling Alley: Alley, Lanes & Lobby Area	50/1,000 Gr SF	265	275	Industrial
21	Bowling Facility: Arcade/Bar/Restaurant/Dancing	Total	Average	Average	Per District Engineer
22	Cafeteria: Fixed Seat	30/Seat	1,000	600	Commercial High Strength
23	Car Wash: Automatic (b)	Actual	265	285	Commercial Medium Strength
24	Car Wash: Coin Operated Bays (b)	Actual	265	285	Commercial Medium Strength
25	Car Wash: Hand Wash (b)	Actual	265	285	Commercial Medium Strength
26	Car Wash: Counter & Sales Area	50/1,000 Gr SF	265	275	Commercial Low Strength
27	Chapel: Fixed Seat	3/Seat	265	275	Commercial Low Strength
28	Chiropractic Office	120/1,000 Gr SF	265	275	Commercial Low Strength
29	Church: Fixed Seat	3/Seat	250	250	Institutional
30	Church School: Day Care/Elem	9/Occupant	250	250	Institutional
31	Church School: One Day Use (s)	9/Occupant	250	250	Institutional
32	Cocktail Lounge: Fixed Seat (f)	15/Seat	265	275	Commercial Low Strength
33	Coffee House: No Food Preparation (d)	720/1,000 Gr SF	265	275	Commercial Low Strength
34	Coffee House: Pastry Baking Only (d)	720/1,000 Gr SF	265	275	Commercial Low Strength
35	Coffee House: Serves Prepared Food (d)	25/Seat	1,000	600	Commercial High Strength
36	Cold Storage: No Sales (g)	30/1,000 Gr SF	265	275	Commercial Low Strength
37	Cold Storage: Retail Sales (g)	50/1,000 Gr SF	265	275	Commercial Low Strength
38	Comfort Station: Public	80/Fixture	265	275	Commercial Low Strength
39	Commercial Use (a)	50/1,000 Gr SF	265	275	Commercial Low Strength

IRONHOUSE SANITARY DISTRICT
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Exhibit 9 - Summary of Customer Class by Facility Description

<i>Line No.</i>	FACILITY DESCRIPTION	PROPOSED SGF¹ IN GPD	BOD (mg/l)	SS (mg/l)	Customer Class
40	Community Center	3/Occupant	265	275	Commercial Low Strength
41	Conference Room of Office Bldg.	120/1,000 Gr SF	265	275	Commercial Low Strength
42	Counseling Center (h)	120/1,000 Gr SF	265	275	Commercial Low Strength
43	Credit Union	120/1,000 Gr SF	265	275	Commercial Low Strength
44	Dairy	Average Flow	1,510	325	Industrial
45	Dairy: Barn	Average Flow	1,510	325	Industrial
46	Dairy: Retail Area	50/1,000 Gr SF	265	275	Commercial Low Strength
47	Dancing Area (of Bars or Nightclub) (c)	350/1,000 Gr SF	265	275	Commercial Low Strength
48	Dance Studio (i)	50/1,000 Gr SF	265	275	Commercial Low Strength
49	Dental Office/Clinic	250/1,000 Gr SF	265	275	Commercial Low Strength
50	Doughnut Shop	280/1,000 Gr SF	1,000	600	Commercial High Strength
51	Drug Rehabilitation Center (h)	120/1,000 Gr SF	265	275	Commercial Low Strength
52	Equipment Booth	30/1,000 Gr SF	265	275	Commercial High Strength
53	Film Processing (Retail)	50/1,000 Gr SF	265	275	Commercial Low Strength
54	Film Processing (Industrial)	Actual	265	275	Commercial High Strength
55	Food Processing Plant (b)	Actual	2,210	1,450	Industrial
56	Gas Station: Self Service	100/W.C.	265	275	Commercial Low Strength
57	Gas Station: Four Bays Max	430/Station	1,950	1,175	Industrial
58	Golf Course Facility: Lobby/Office/Restaurant/Bar	Total	700	450	Commercial High Strength
59	Gymnasium: Basketball, Volleyball (k)	200/1,000 Gr SF	265	275	Commercial Low Strength
60	Hanger (Aircraft)	50/1,000 Gr SF	265	275	Commercial Low Strength
61	Health Club/Spa (k)	650/1,000 Gr SF	265	275	Commercial Low Strength
62	Homeless Shelter	70/Bed	265	275	Commercial Low Strength
63	Hospital	70/Bed	820	1,230	Industrial
64	Hospital: Convalescent (a)	70/Bed	250	250	Institutional
65	Hospital: Animal	300/1,000 Gr SF	820	1,230	Industrial
66	Hospital: Psychiatric	70/Bed	250	250	Institutional
67	Hospital: Surgical (a)	360/Bed	250	250	Institutional
68	Hotel: Use Guest Rooms Only (a)	120/Room	265	275	Commercial Low Strength
69	Jail	85/Inmate	250	250	Institutional
70	Kennel: Dog Kennel/Open	100/1,000 Gr SF	265	275	Commercial Low Strength
71	Laboratory: Commercial	250/1,000 Gr SF	265	275	Commercial Low Strength
72	Laboratory: Industrial	Actual	265	275	Commercial Low Strength
73	Laundromat	185/Machine	550	370	Commercial Medium Strength
74	Library: Public Area	50/1,000 Gr SF	250	250	Institutional
75	Library: Stacks, Storage	30/1,000 Gr SF	250	250	Institutional
76	Lobby of Retail Area (l)	50/1,000 Gr SF	265	275	Commercial Low Strength
77	Lodge Hall	3/Seat	265	275	Commercial Low Strength
78	Lounge (l)	50/1,000 Gr SF	265	275	Commercial Low Strength

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Line No.	FACILITY DESCRIPTION	PROPOSED SGF ¹ IN GPD	BOD (mg/l)	SS (mg/l)	Customer Class
79	Machine Shop (No Industrial Waste Permit Required)	50/1,000 Gr SF	265	275	Commercial Low Strength
80	Machine Shop (Industrial)	Actual	265	275	Commercial Low Strength
81	Mfg or Industrial Facility (No IW Permit Required) (b)	50/1,000 Gr SF	265	275	Commercial Low Strength
82	Mfg or Industrial Facility (Industrial)	Actual	265	275	Commercial Low Strength
83	Massage Parlor	250/1,000 Gr SF	265	275	Commercial Low Strength
84	Medical Building (a)	225/1,000 Gr SF	265	275	Commercial Low Strength
85	Medical: Lab in Hospital	250/1,000 Gr SF	340	275	Commercial Low Strength
86	Medical Office/Clinic	250/1,000 Gr SF	265	275	Commercial Low Strength
87	Mini-Mall (No Food)	50/1,000 Gr SF	265	275	Commercial Low Strength
88	Mortuary: Chapel	3/Seat	265	275	Commercial Low Strength
89	Mortuary: Embalming	300/1,000 Gr SF	800	800	Commercial High Strength
90	Mortuary: Living Area	50/1,000 Gr SF	265	275	Commercial Low Strength
91	Motel: Use Guest Room Only (a)	120/Room	265	275	Commercial Low Strength
92	Museum: All Area	30/1,000 Gr SF	265	275	Commercial Low Strength
93	Museum: Office Over 15%	120/1,000 Gr SF	265	275	Commercial Low Strength
94	Museum: Sales Area	50/1,000 Gr SF	265	275	Commercial Low Strength
95	Office Building (a)	120/1,000 Gr SF	265	275	Commercial Low Strength
96	Office Bldg w/Cooling Tower	170/1,000 Gr SF	265	275	Commercial Low Strength
97	Plating Plant (No IW Permit Required) (b)	50/1,000 Gr SF	265	275	Commercial Low Strength
98	Plating Plant (Industrial) (b)	Actual	265	275	Commercial Low Strength
99	Pool Hall (No Alcohol)	50/1,000 Gr SF	265	275	Commercial Low Strength
100	Post Office: Full Service (m)	120/1,000 Gr SF	265	275	Commercial Low Strength
101	Post Office: Private Mail Box Rental	50/1,000 Gr SF	265	275	Commercial Low Strength
102	Prisons	175/Inmate	250	250	Institutional
103	Residential Dorm: College or Residential (n)	70/Student	265	275	Multiple Residential
104	Residential: Boarding House	70/Bed	265	275	Multiple Residential
105	Residential: Apt - Bachelor (a)	75/DU	265	275	Multiple Residential
106	Residential: Apt - 1 BDR (a) (o)	110/DU	265	275	Multiple Residential
107	Residential: Apt - 2 BDR (a) (o)	150/DU	265	275	Multiple Residential
108	Residential: Apt - 3 BDR (a) (o)	190/DU	265	275	Multiple Residential
109	Residential: Apt - >3 BDR (o)	40/BDR	265	275	Multiple Residential
110	Residential: Condo - 1 BDR (o)	110/DU	265	275	Multiple Residential
111	Residential: Condo - 2 BDR (o)	150/DU	265	275	Multiple Residential
112	Residential: Condo - 3 BDR (o)	190/DU	265	275	Multiple Residential
113	Residential: Condo - >3 BDR (o)	40/BDR	265	275	Multiple Residential
114	Residential: Duplex/Townhouse - 1 BR (o)	110/DU	265	275	Multiple Residential
115	Residential: Duplex/Townhouse - 2 BR (o)	150/DU	265	275	Multiple Residential
116	Residential: Duplex/Townhouse - 3 BR (o)	190/DU	265	275	Multiple Residential
117	Residential: Duplex/Townhouse - >3 BR (o)	40/BDR	265	275	Multiple Residential

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Wastewater Capacity Fee Study
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Exhibit 9 - Summary of Customer Class by Facility Description

Line No.	FACILITY DESCRIPTION	PROPOSED SGF ¹ IN GPD	BOD (mg/l)	SS (mg/l)	Customer Class
118	Residential: SFD - 1 BR (o)	140/DU	265	275	Residential
119	Residential: SFD - 2 BR (o)	185/DU	265	275	Residential
120	Residential: SFD - 3 BR (o)	230/DU	265	275	Residential
121	Residential: SFD - >3 BR (o)	45/BDR	265	275	Residential
122	Residential Room Addition: Bedroom (o)	45/BDR	265	275	ADU
123	Residential Room Conversion: Into a Bedroom (o)	45/BDR	265	275	ADU
124	Residential: Mobile Home	Same as Apt	265	275	Multiple Residential
125	Residential: Artist (2/3 Area)	75/DU	265	275	Multiple Residential
126	Residential: Artist Residence	75/DU	265	275	Multiple Residential
127	Residential: Guest Home w/ Kitchen	Same as Apt	265	275	Multiple Residential
128	Residential: Guest Home w/o Kitchen	45/BDR	265	275	Multiple Residential
129	Rest Home	70/Bed	555	490	Commercial High Strength
130	Restaurant: Drive-In	50/Stall	1000	600	Commercial High Strength
131	Restaurant: Drive-In Seating Area	25/Seat	1000	600	Commercial High Strength
132	Restaurant: Fast Food Indoor Seat	25/Seat	1000	600	Commercial High Strength
133	Restaurant: Fast Food Outdoor Seat	25/Seat	1000	600	Commercial High Strength
134	Restaurant: Full Service Indoor Seat (a)	30/Seat	1000	600	Commercial High Strength
135	Restaurant: Full Service Outdoor Seat	30/Seat	1000	600	Commercial High Strength
136	Restaurant: Take Out	300/1,000 Gr SF	1000	600	Commercial High Strength
137	Retail Area (greater than 100,000 SF)	50/1,000 Gr SF	265	275	Commercial Low Strength
138	Retail Area (less than 100,000 SF)	25/1,000 Gr SF	265	275	Commercial Low Strength
139	Rifle Range: Shooting Stalls/Lanes, Lobby	50/1,000 Gr SF	265	275	Commercial Low Strength
140	Rifle Range Facility: Bar/Restaurant	Total	Average	Average	Per District Engineer
141	School: Arts/Dancing/Music (i)	11/Student	250	250	Institutional
142	School: Elementary/Jr. High (a) (p)	9/Student	250	250	Institutional
143	School: High School (a) (p)	11/Student	250	250	Institutional
144	School: Kindergarten (s)	9/Student	250	250	Institutional
145	School: Martial Arts (i)	9/Student	250	250	Institutional
146	School: Nursery-Day Care (p)	9/Child	250	250	Institutional
147	School: Special Class (p)	9/Student	250	250	Institutional
148	School: Trade or Vocational (p)	11/Student	250	250	Institutional
149	School: Training (p)	11/Student	250	250	Institutional
150	School: University/College (a) (p)	16/Student	250	250	Institutional
151	School: Dormitory (a) (n)	70/Student	250	250	Institutional
152	School: Stadium, Pavilion	3/Seat	250	250	Institutional
153	Spa/Jacuzzi (Commercial with backwash filters)	Total	250	250	Institutional
154	Storage: Building/Warehouse	30/1,000 Gr SF	250	250	Institutional
155	Storage: Self-Storage Bldg	30/1,000 Gr SF	250	250	Institutional
156	Store: Ice Cream/Yogurt	25/1,000 Gr SF	1000	600	Commercial High Strength

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Line No.	FACILITY DESCRIPTION	PROPOSED SGF ¹ IN GPD	BOD (mg/l)	SS (mg/l)	Customer Class
157	Store: Retail (l)	50/1,000 Gr SF	265	275	Commercial Low Strength
158	Studio: Film/TV - Audience Viewing Room (q)	3/Seat	265	275	Commercial Low Strength
159	Studio: Film/TV - Regular Use Indoor Filming Area (q)	50/1,000 Gr SF	265	275	Commercial Low Strength
160	Studio: Film/TV - Ind. Use Film Process/Machine Shop	50/1,000 Gr SF	265	275	Commercial Low Strength
161	Studio: Film/TV - Ind. Use Film Process/Machine Shop	Total	265	275	Commercial Low Strength
162	Studio: Recording	50/1,000 Gr SF	265	275	Commercial Low Strength
163	Swimming Pool (Commercial with backwash filters)	Total	265	275	Commercial Low Strength
164	Tanning Salon: Independent, No Shower (r)	50/1,000 Gr SF	265	275	Commercial Low Strength
165	Tanning Salon: Within a Health Spa/Club	640/1,000 Gr SF	265	275	Commercial Low Strength
166	Theater: Drive-In	6/Vehicle	265	275	Commercial Low Strength
167	Theater: Live/Music/Opera	3/Seat	265	275	Commercial Low Strength
168	Theater: Cinema	3/Seat	265	275	Commercial Low Strength
169	Tract: Commercial/Residential	1/Acre	265	275	Commercial Low Strength
170	Trailer: Const/Field Office (e)	120/Office	265	275	Commercial Low Strength
171	Veterinary Clinic/Office	250/1,000 Gr SF	265	275	Commercial Low Strength
172	Warehouse	30/1,000 Gr SF	265	275	Commercial Low Strength
173	Warehouse w/ Office	Total	265	275	Commercial Low Strength
174	Waste Dump: Recreational	400/Station	2650	2750	Industrial
175	Wine Tasting Room: Kitchen	200/1,000 Gr SF	265	275	Commercial Low Strength
176	Wine Tasting Room: All Area	50/1,000 Gr SF	265	275	Commercial Low Strength

1. Sewage Generation Factor.